

ABSTRACT

A rubber-reinforced structure comprises a composite member comprising a resin member and a rubber member being directly bonded to the resin member without any adhesive, wherein the resin member and the rubber member form a tire. The composite member can be obtained by bringing a resin member into contact with an unvulcanized rubber composition in the following combination, and vulcanizing the unvulcanized rubber: (i) a combination of a rubber composition containing a radical-generating agent, and a resin composition containing a thermoplastic resin having at least two active atoms (a hydrogen atom or a sulfur atom) on the average per molecule, each atom having an orbital interaction energy coefficient S of not less than 0.006; (ii) a combination of a rubber composition containing a sulfur-containing vulcanizing agent or a radical-generating agent, and a resin composition containing a resin selected from a thermoplastic resin and a resin having a crosslinkable group; or (iii) a combination of a styrene-diene-series rubber composition containing a sulfur-containing vulcanizing agent or a rubber composition containing a radical-generating agent, and a resin composition containing a polyphenylene ether-series resin.